

Date: Sat, 27 Mar 93 12:30:35 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #385  
To: Info-Hams

Info-Hams Digest Sat, 27 Mar 93 Volume 93 : Issue 385

## Today's Topics:

"CB transplants"  
2 meter phone calls?  
A question about interference (CQ CONTEST)  
Armstrong/DeForest regenerative receiver  
Autopatch  
Crystal Oscillator Info?  
Kenwood AT-50 antenna tuner for TS-50  
Nicad Memory Effect-Fact or Myth?  
no-coders, scum of the earth  
problems with bad mailing addr for hams?  
Q values.  
Radio club seeks good, cheap 80-10m antenna  
Source For spools of wire  
TM742A out-of-band

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: Fri, 26 Mar 1993 16:46:42 GMT  
From: mvb.saic.com!unogate!news.service.uci.edu!usc!sdd.hp.com!hpscit.sc.hp.com!  
hplextra!hpfcso!wells@network.UCSD.EDU  
Subject: "CB transplants"  
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, jbs@ee.egr.duke.edu (Joe B. Simpson) writes:

> Okay, here's a little quiz. How many of you \*never\* used a CB before

> becoming a ham?  
>  
> The rest of you, hang your heads in shame; you're "CB transplants."  
> Yes, that includes \*you\*.  
>  
> -joe

Actually..... I and several freinds started out building crystal controlled transmitters. We had a dual triode 12AX7 driving a 6LQ6 horizontal sweep vacuum tube.

Most of the mundane stuff came from old TV sets of the era. The chassis were steel cake pans that could be bought at the grocery store (they soldered real nice). Some of the parts came from the local Army Surplus store (Crystals and tank coils and such). We used old 5 or 6 tube shortwave radios for receivers.

I was first class, I had a 15 watt hi-fi amp to plate modulate the sweep tube. My freinds had to modulate the driver with 2 watt phono amplifiers. All this was fed into a longwire antenna of questionable length. It all worked quite nicely, we got many miles range out of our rigs.

It seems that the frequency that worked the best for all of us was dead center in the 49 meter broadcast band.

Once cheap CB rigs came out it was a bit of a relief not to have to have all that stuff strung up around my bedroom.

So if I were to answer truthfully I'd have to say that my roots are deep in the middle of the international shortwave broadcast bands. ;-)

John in das Fort

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Date: 27 Mar 93 04:15:46 GMT  
From: olivea!charnel!rat!koko.csustan.edu!nic.csu.net!nuntius!  
vannuysd@uunet.uu.net  
Subject: 2 meter phone calls?  
To: info-hams@ucsd.edu

Hi Gang,

I used to be a ham but let my license expire. I am thinking of getting back into it. Is it true that with a 2-meter HT it is possible to make phone calls? What are the limitations/restrictions? Are there disadvantages relative to a cellular phone?

Please send e-mail replies. Thanks.

David Van Nuys  
Psychology, Sonoma State University, Rohnert Park, CA 94928

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Date: Sat, 27 Mar 1993 12:57:17 GMT  
From: news.Hawaii.Edu!uhunix.uhcc.Hawaii.Edu!shalamsk@ames.arpa  
Subject: A question about interference (CQ CONTEST)  
To: info-hams@ucsd.edu

I have been able to deal with the local CATV company, basically by running a 24 hour packet station on 2 meters that forced them to clean up their trunk lines and plug a multitude of leaks :-).

But the WPX contest has me worried... the HF phone bands are one big pileup. Can't the contest organizers make some band limitations on the contestants? It could be easily enforced -- have a couple of umpires listening above the "contest band edge" and disqualify anyone calling CQ CONTEST out of band.

I should not require a kilowatt to talk to the Pacific Rim. Usually it takes under 20 watts to be heard, and 100 watts is plenty... this weekend it's hopeless, while band conditions are excellent.

I am not anti-contest, but let's be a little bit considerate!

Aloha,  
John KJ9U/KH6

--  
INTERNET: shalamsk@uhunix.uhcc.hawaii.edu, kj9u@uhm.ampr.org  
I speak for no one other than myself, of course.

-----  
Date: Thu, 25 Mar 1993 18:10:10 GMT  
From: newshub.nosc.mil!vela.acs.oakland.edu!cs.uiuc.edu!wupost!sdd.hp.com!  
hpscit.sc.hp.com!hplextra!hpcc05!hpldsla!brunob@network.UCSD.EDU  
Subject: Armstrong/DeForest regenerative receiver  
To: info-hams@ucsd.edu

The ARRL handbook 1972 p.231, 1976 p.297 etc

from the log of AA6AD

Date: Sat, 27 Mar 1993 14:56:45 GMT  
From: usc!howland.reston.ans.net!gatech!kd4nc!ke4zv!gary@network.UCSD.EDU  
Subject: Autopatch  
To: info-hams@ucsd.edu

In article <1286@arrl.org> lhurder@arrl.org (Luck Hurder KY1T) writes:  
>In rec.radio.amateur.misc, gary@ke4zv.uucp (Gary Coffman) writes:  
>>The FCC rules don't require a CW ID for any transmission except a  
>>CW transmission. It's allowed, but it's not required. Normally you'd  
>>ID using the same mode as the rest of the transmission, in this case  
>>by voice announcement.  
>  
>That's fine for the individual USING the repeater. But the original  
>author was curious about the need for the REPEATING device to ID,  
>which -- according to the rules -- it certainly must.

Well it's legal for the user to ID the machine as well as his own station by doing a network ID at the required intervals. The poster was describing a \*remote base\*, not a repeater operating under automatic control.

>So, yes, it would be easy for the user to ID on voice. Less so for the >various repeater transmitters...

Automated voice ID is probably becoming more common on repeaters today than CW IDers. A ROM speech image and a codec will do. With the fancier controllers that have voicemail and such, all it takes is another voice file and a bit of control software. There's certainly nothing \*wrong\* with using CW ID, my machine does, but it isn't required.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

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Date: Fri, 26 Mar 93 17:49:23 CST  
From: dds w1!gagme!precipice!jjw@uunet.uu.net  
Subject: Crystal Oscillator Info?  
To: info-hams@ucsd.edu

gw214790@longs.LANCE.ColoState.Edu (Galen Watts) writes:

> I'm trying to build a crystal oscillator using cheap microprocessor  
> crystals. I can get a crystal that is half the frequency I want, but

> I can't find any books that have doubling oscillators in them. Anybody  
> out there know of such books?

Possibility - build an oscillator on your crystal's frequency,  
then run that into a doubler, then into a 74LS14 to square it up  
again. It \*could\* be done, but it's a \*whole\* lot easier and  
cheaper to order the correct oscillator from Mouser, DigiKey or  
another distributor.

-->jjw

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Date: 27 Mar 93 06:06:52 GMT  
From: sdd.hp.com!caen!umcc.umcc.umich.edu!tim@hplabs.hp.com  
Subject: Kenwood AT-50 antenna tuner for TS-50  
To: info-hams@ucsd.edu

The antenna tuner designed for the Kenwood TS-50 -- the AT-50, is now  
available.

I bought a TS-50 last night, & the dealer (Michigan Radio) had several.

However, I opted for the AT-300...

--  
Tim Tyler Internet: tim@ais.org MCI Mail: 442-5735 GEnie: T.Tyler5  
P.O. Box 443 C\$erve: 72571,1005 DDN: Tyler@Dockmaster.ncsc.mil  
Ypsilanti MI Packet: KA8VIR @WB8ZPN.#SEMI.MI.USA.NA  
48197

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Date: Sat, 27 Mar 1993 15:20:51 GMT  
From: usc!howland.reston.ans.net!gatech!kd4nc!ke4zv!gary@network.UCSD.EDU  
Subject: Nicad Memory Effect-Fact or Myth?  
To: info-hams@ucsd.edu

In article <C4IIIr.Goq@ns1.nodak.edu> altenbur@plains (Karl Altenburg) writes:  
>Regarding dicharging; would discharging a six cell NiCd pack through  
>a mechanical relay and a power resistor be a good idea?  
>  
>The relay is rated at 5v and has a operating range of 3.4v on and  
>9.5v continuous. This would mean that the relay would close a circuit  
>to the resistors as long as the NiCd pack provided at least 3.4v. Below

>this voltage the relay would open and the pack would stop discharging.  
>  
>The real question I have is: Does cell reversing occur at 0.57v per  
>cell?  
>  
>If so, I plan to use a voltage divider so that the relay opens at 1.0v per  
>cell (6v per pack.)

The problem with any such scheme is that it is based on the assumption that all the cells are nearly equal in capacity. That's not a safe assumption. Suppose you had a cell in the pack that only had 200 ma/hr of capacity while the rest had 250-300 ma/hr. At a pack voltage of 6.0 volts, you could be reversing the weak cell since the others would have dropped hardly at all in terminal voltage at the 200 ma/hr discharge point. The more likely case is when every cell has a different capacity so that there is no safe discharge point below 1.0mumble volts per cell. Remember one of the advantages of a NiCad is that it holds terminal voltage to nearly the bitter end of capacity.

Now if you \*knew\* all the cells in the pack were matched, and you \*knew\* the pack hadn't been abused, then you could use such a discharger circuit safely. But if the pack is in such good shape, why would you want to shorten it's life by doing deep discharges? Instead you should be concentrating on using a charger that senses full charge and \*stops\*. That's what screws up NiCads, excessive overcharge. A NiCad will stand many more partial charge/discharge cycles than deep cycles, so using a discharger wastes battery life that could be used powering the radio. Deep discharging should be viewed as a tool for treating \*abused\* cells, not as a routine operating procedure for battery \*packs\*.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

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Date: 25 Mar 93 23:10:29 GMT

From: wupost!emory!news-feed-1.peachnet.edu!umn.edu!kksys.com!edgar!brainiac!  
moron!biggus.g4jec.tcman.ampr.org!chrisc@decwrl.dec.com  
Subject: no-coders, scum of the earth  
To: info-hams@ucsd.edu

In article <1oq2da\$56e@slab.mtholyoke.edu>, wvogel@MtHolyoke.edu (keeper of the tone) writes:

|> Derek Wills (oo7@emx.cc.utexas.edu) wrote:

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|> > Oh. It says here his callsign is* NS3K..... must be a misprint!
|>                                         ^^^^^^^^^^?????
|> i doubt that is the proper call sign reread the article
|> that particular call belongs to an EXTRA ham from Fairfax Va.
|>
```

Derek - I guess some people need to see the :-) before they can detect British wit...

--

73 Chris Cox W0/G4JEC  
chrisc@biggus.g4jec.tcman.ampr.org chrisc@biggus.moron.vware.mn.org  
Eleventh Hour Contest Group - North American Chapter; Minneapolis, MN  
Twin Cities Metro Area Network node (biggus.g4jec.tcman.ampr.org)  
\*\*\*\* And lest they forget: \*\*\*\*  
Packet radio fiends really enjoy playing with their bits...

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Date: Sat, 27 Mar 1993 05:42:38 GMT  
From: saimiri.primate.wisc.edu!zaphod.mps.ohio-state.edu!darwin.sura.net!news-feed-1.peachnet.edu!athena!aisun3.ai.uga.edu!mcovingt@ames.arpa  
Subject: problems with bad mailing addr for hams?  
To: info-hams@ucsd.edu

My understanding is that the FCC requires you to keep a current address on file with them as a requirement for the continued validity of your license. If you move and don't tell them, then, the way they see it, you've absconded -- they see it as suspicious behavior, you seem to be trying to get beyond their reach.

Case in point: If you appear to be violating regulations, you are sent a notification to which you must respond within (I think) 10 days. If you don't get the notification, you can't meet the 10-day deadline and your license becomes invalid.

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:- Michael A. Covington internet mcovingt@ai.uga.edu : \*\*\*\*\*  
:- Artificial Intelligence Programs phone 706 542-0358 : \*\*\*\*\*  
:- The University of Georgia fax 706 542-0349 : \* \* \*  
:- Athens, Georgia 30602-7415 U.S.A. amateur radio N4TMI : \*\* \*\*\* \*\*

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Date: Sat, 27 Mar 1993 16:58:17 GMT  
From: usc!howland.reston.ans.net!gatech!kd4nc!ke4zv!gary@network.UCSD.EDU  
Subject: Q values.  
To: info-hams@ucsd.edu

In article <1993Mar26.120809.1899@hemlock.cray.com> dadams@cray.com writes:  
>Could someone explain what a Q value is, pertaining to a tank circuit?

Q, or quality factor, is a simple, but widely misunderstood parameter of tuned circuits. In the simplest terms,  $Q = X/R_s$ . It's just the ratio of the reactance to the series resistance of a component, or circuit, at a given frequency. For resonant LC circuits, that frequency is the resonance frequency. At resonance,  $X = |X_c| = |X_L|$ . Note the absolute value operators, you can't have a negative Q.

Now why would anyone care about Q? There are several reasons. A reactive circuit consumes volt-amperes while a resistive circuit consumes watts. So the higher the Q, naively, the less the circuit losses. Thus it seems important for efficiency to minimize resistance. You don't want to waste power heating coils.

Another reason Q is important is in determining the bandwidth of an LC circuit. The -3 db bandwidth of a resonant circuit is  $B_w = F/Q$ . As an example, suppose we have a parallel tank resonant at 21 MHz with a Q of 10. Its 3db bandwidth is 2.1 MHz. Now suppose instead that it has a Q of 100, then the 3db bandwidth will only be 210 kHz. So higher Q circuits are more selective than low Q circuits.

This is all well and good until we try to transfer power through such a circuit. Now we must consider "loaded Q" which surprisingly enough is  $Q_L = R_L/X$ .  $R_L$  is the parallel load resistance. Now to maximize power for a given Q, X has to be smaller than  $R_L$ , and  $R_s$  has to be smaller than X. When we start running realistic numbers, this usually gives us practical  $Q_L$  values near 10.

>Also I thought I knew how to calculate the resonant frequency of a  
>tank circuit given the inductance and capacitance, but I missed  
>the question on the exam, so perhaps someone could address that.  
>How does the answer change if the capacitor and inductor are  
>in series rather than in parallel?

Resonance occurs when  $X_c = X_L$ . Since  $X_c = 1/(2\pi f C)$  and  $X_L = 2\pi f L$ , we have  $f = 1/(2\pi \sqrt{L C})$  with f in Hertz, L in henrys, and C in farads. Resonance is calculated the same for series or parallel circuits. The difference between series and parallel resonant circuits is that the series circuit has (ideally) zero impedance as a two terminal network while a parallel circuit has (ideally) infinite impedance as a two terminal network at resonance. When you include Q, neither of these networks are ideal and you say low and high respectively.

Gary

--

Gary Coffman KE4ZV		You make it,	gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.	uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!	emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244			

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Date: Sat, 27 Mar 1993 06:08:59 GMT  
From: elroy.jpl.nasa.gov!sdd.hp.com!ux1.cso.uiuc.edu!news.cso.uiuc.edu!  
uxa.cso.uiuc.edu!btbg1194@ames.arp  
Subject: Radio club seeks good, cheap 80-10m antenna  
To: info-hams@ucsd.edu

I am asking for information on inexpensive HF radio antennas on behalf of the Synton ARC, W9YH, at the University of Illinois.

We have a Butternut HF6V vertical which is in need of about \$50 of repair and a good radial system. What about some of these inexpensive \$100 HF 80-10 vertical antennas from Hustler? What experience have people had with them?

Any recommendations for a university radio club with little space for large antennas, a tight budget, and facing an impending location move in the near future?

Thanks in advance!

KB8CNE, Brad Banko  
V. Pres., Synton ARC, W9YH

--  
Brad Banko; Dept of Physics; U of Illinois; b-banko@uiuc.edu

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See one. Do one. Teach one. 73 de kb8cne @ n9lnq.il

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Date: Fri, 26 Mar 1993 10:50:56 -0600  
From: usc!wupost!darwin.sura.net!news-feed-1.peachnet.edu!umn.edu!uum1!kksys.com!  
edgar!tdkt!FredGate@network.UCSD.EDU  
Subject: Source For spools of wire  
To: info-hams@ucsd.edu

John Stroppel wrote:

JS>Have you tried the local telephone company. Some of the small town  
JS>companies junk the overhead copperweld when they put in underground.  
JS>I have gotten large spools of miles of this wire. john WA0VYZ

John, I'm just curious but what does a telephone company use this wire for? I thought all the wire they strung was multi conductor stuff.

73 de KA0GKC Claton

\* SLMR 2.1a \* If messy shacks were worth money, I'd be a millionaire!

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Date: 27 Mar 93 11:03:59 CST

From: usc!wupost!spool.mu.edu!eng.ufl.edu!usenet.cis.ufl.edu!caen!  
kuhub.cc.ukans.edu!baxter@network.UCSD.EDU  
Subject: TM742A out-of-band  
To: info-hams@ucsd.edu

I recently purchased a Kenwood TM-741A, and the main reason for buying this radio was the available 100 channels/band, out of band reception, and channel banking. It seemed like an ideal radio to combine ham use and a few public service frequencies into one scanning radio.

However, I've been very unimpressed with the out-of-band reception. Lots of intermod, and whistling on the 450-470 band, presumably caused by the pre-amp going into oscillation (as described by other users.)

I'm considering trading up from the 741A to the 742A, as there is some information about that Kenwood has fixed the pre-amp circuit in the newer model.

Does anyone have any comments about the out-of-band UHF/ (or even VHF) reception in this new model?

Thanks,  
Kirk, N0FPZ

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Date: 27 Mar 1993 14:44:35 GMT  
From: topaz.bds.com!topaz.bds.com!ron@uunet.uu.net  
To: info-hams@ucsd.edu

References <1olckaINNpni@topaz.bds.com>, <930325.235421.0F9.rusnews.w165w@garlic.sbs.com>, <1993Mar27.041159.1203@kpc.com>  
Subject : Re: How long to get new Callsign?

> The question is, if I go for the General or Advanced before I receive my Tech

> callsign, will that impede processing of my Tech? Does it make a difference  
> if I request a new callsign?

No, if you pass your higher class license before you get your Tech, the VEC (ARRL, W5YI, etc...) will hold up your upgrade paperwork until they get the copy of your Tech license (they are asked to do this by the FCC, so only one copy of stuff is in the FCC's system). This is not usually a problem for people because as soon as you pass your upgrade (and have received your callsign) you can operate with the privileges of the highest class license you've passed using the temporary authority (it's printed on the back of the ARRL CSCE's).

I don't think whether you check the callsign change box on the 610 has any effect on processing time one way or another. It just tells the computer to kick out a new callsign when it prints the license as opposed to reusing your old one.

In California (as in 4 land and other places) asking for a new callsign for General upgrade from tech is a bit silly as they are allocated out of the same series.

-Ron

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Date: Sat, 27 Mar 1993 17:11:34 GMT  
From: usc!howland.reston.ans.net!gatech!kd4nc!ke4zv!gary@network.UCSD.EDU  
To: info-hams@ucsd.edu

References <59Bb03A3ce8000@amdahl.uts.amdahl.com>, <1993Mar25.125446.13184@ke4zv.uucp>, <8amB03RVcebZ00@amdahl.uts.amdahl.com>  
Reply-To : gary@ke4zv.UUCP (Gary Coffman)  
Subject : Re: RFD: reorganization of rec.radio.amateur

In article <8amB03RVcebZ00@amdahl.uts.amdahl.com> ikluft@uts.amdahl.com (Ian Kluft) writes:

>  
>All the proposed newsgroups in this RFD are based on topics which appear to  
>have a base of interested readers out there. So I would compare these with  
>r.r.a.packet rather than r.r.a.policy. And with r.r.a.packet I can point to  
>an example that has worked very well.

The packet group is better, but the number of packet related posts in misc still outnumber the ones in the packet group. And many are crossposted to both. Rec.radio.info is the prime offender in this case with virtually everything crossposted to misc. Now I know a smart reader can deal with this, but as Jay is fond of pointing out, not everyone has a smart reader. Many people download the groups at their expense, and others receive them

as mail.

>I realize this may not convince you. At least you'll now understand that we  
>have the same concern you do that the r.r.a.policy mistake should not be  
>repeated. (I'm pretty sure I can say that for the rra-reorg mail list based  
>on what I saw there.) Though, here's where you and I may differ, I think we  
>can be successful in creating new newsgroups if we make sure the subjects are  
>based on topics which sustain themselves on the newsgroup today.

More importantly, what about the mailing lists for bitnet and such? Has Brian agreed to support separate lists, or is everything from the lists going to wind up back in misc, and everything to the lists going to be missing the new special interest groups? If that's the case, we'll be looking at a dead horse very quickly.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

-----  
Date: Sat, 27 Mar 1993 04:11:59 GMT

From: dog.ee.lbl.gov!pasteur!agate!usenet.ins.cwru.edu!gatech!news-feed-1.peachnet.edu!darwin.sura.net!sgiblab!news.kpc.com!kpc!  
sleat@network.UCSD.EDU  
To: info-hams@ucsd.edu

References <1993Mar21.042131.26584@porthos.cc.bellcore.com>,  
<1olckaINNpni@topaz.bds.com>, <930325.235421.0F9.rusnews.w165w@garlic.sbs.com>  
Subject : Re: How long to get new Callsign?

In article <930325.235421.0F9.rusnews.w165w@garlic.sbs.com>, system@garlic.sbs.com  
(Anthony S. Pelliccio) writes:

|> Actually my upgrade took about 8 weeks and 5 days. I suppose it would  
|> have been shorter if I'd had my General ticket at the time I took my  
|> element 4A. So look at about 8 weeks. And this is from 1 land.

...which brings up something I've been wondering about recently. I've been working on getting my General or Advanced recently, but have been a bit pressed for time and wanted to ensure that I at least had VHF capability for an event in July. So last weekend I passed elements 1A, 2, and 3A. Sometime before July, I hope, I should be getting my Tech callsign. Meanwhile, I'm almost ready to take the 13wpm and 3B (and maybe 4A) tests.

The question is, if I go for the General or Advanced before I receive my Tech

callsign, will that impede processing of my Tech? Does it make a difference if I request a new callsign?

Michael Sleator	Voice:	408-748-6339
Kubota Pacific Computer	FAX:	408-748-6301
2630 Walsh Ave.	internet:	sleat@kpc.com
Santa Clara, CA 95051	uucp:	...!uunet!kpc!sleat

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End of Info-Hams Digest V93 #385

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